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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,303	09/15/1999	ALEJANDRO H. SCHWARTZMAN	CISCP092X1/1	7238

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EXAMINER

TRAN, KHANH C

ART UNIT PAPER NUMBER

2631

DATE MAILED: 05/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/396,303

Applicant(s)

SCHWARTZMAN ET AL.

Examiner

Khanh Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-12 and 17 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 8-12 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders et al. U.S. Patent 5,893,024 in view of Nakagawara U.S. Patent 6,181,365 B1.

Regarding claims 1, 8-12 & 17, Sanders et al. teaches in figure 2 a method and apparatus for reducing ingress noise leakage in the upstream frequency band by not allowing signals generated in the customer premise 104 to enter the upstream band on the cable network 110, in figure 1, unless a customer premise modem 202 is attempting to establish a communication link. Sanders et al. discloses in figure 2 a cable access unit 106 having a control line, which includes a detector 206, a comparator 208, a logic circuit 210 and a memory 211. Said cable access unit also comprises a switch 212 and an amplifier 214 in the upstream frequency band. The RF signal travels from the customer premise modem 202 through a directional coupler 204 to said detector 206, which detects the RF pulse and produces a DC output to the comparator 208. The comparator 208 compares the DC output level to a reference voltage. If the voltage output of said detector 206 is above a minimum threshold voltage, said comparator 208 provides a voltage to the logic circuit 210, which closes the ingress switch 212 to

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connect the modem 202 to the power amplifier 214 for amplifying the data signal before transmission on the upstream channel. Said power amplifier 214 is turned on and draw power only after the logic circuit 210 has determined that the modem 202 is transmitting. Otherwise, power amplifier 214 does not draw power and is off. However, Sanders et al. teaches the cable access unit 106 is outside the modem and is mounted either to the side of a subscriber premise 104 or mounted on a basement wall of the subscriber premise 104.

Nakagawara discloses in figure 1 a RF output device for CATV processing having a switch 3 provided on the upstream line in a cable modem. The switch 3 is positioned at the final stage where the signal level is largest to minimize the noise as small as possible during off state of the switch. It's evident that employing a switch on the upstream line in a cable modem would reduce ingress noise in the upstream frequency band to a minimum level when not in use and it's cost effective and simplicity to have the switch with a control unit inside the cable modem. Therefore, it would have been obvious for one of ordinary skills in the art to integrate the cable access unit as described by Sanders et al. into a RF output device for CATV as taught by Nakagawara.

Regarding claims 2-4, Nakagawara further discloses in figure 4 wherein the switch 3 in figure 1 comprises two bridge diode switches D1 to D4 and D5 to D8 having a common output terminal, two bias current sources I1 and I2 for controlling the operation thereof, and current switches.

***Allowable Subject Matter***

2. Claims 5-7, 13-16 are objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

3. The prior art made of record and not relied upon could be considered pertinent to applicant's disclosure:

Baran et al. U.S. Patent 6,049,693 discloses an upstream ingress noise blocking filter for cable television system.

Vince et al. U.S. Patent 5,937,330 discloses a device eliminating all RF ingress noise from entering the CATV network in the upstream communication path.

Rocci et al. U.S. Patent 4,810,898 discloses a RF network isolation switch.

Sanders et al. U.S. Patent 5,742,713 discloses an upstream ingress filter for isolating upstream ingress noise on a bi-directional cable system.

Eldering U.S. Patent 6,321,384 B1 discloses a method of reducing noise and ingress in cable return paths.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 703-305-2384. The examiner can normally be reached on Monday - Friday from 08:00 AM - 04:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

KCT  
May 15, 2002

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600 5/16/02